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ABSTRACT

A study focused on the development of a research-based model of spelling instruction by synthesizing 20 instructional strategies from 144 empirical studies found in scholarly literature, in which spelling procedures were tested in controlled settings. In addition, the study investigated three research questions: (1) the extent to which elementary school teachers report having used each of the strategies in classroom instruction; (2) the extent to which teachers' views reflected research-supported strategies; and (3) the extent to which grade level, professional training, and professional experience contribute to the relationship between teachers' views and their reported classroom practices. Subjects, 170 Georgia elementary and special education teachers, were twice administered a questionnaire drawn from the research-based instructional strategies, first to test the teachers' reports of their use of the 20 instructional strategies, and second, to test their views about whether these strategies should be incorporated into their classroom instruction. Results indicated that, of the 20 strategies, 8 were reported as being used and favored, while 1 was reported as being used but not favored. Additionally, the teachers indicated a research-based view of six strategies, but did not integrate those views into their classroom practices. Finally, teachers revealed classroom practices and professional views that conflicted with five research-based strategies. Findings also suggest that the discrepancies between teacher practices and views were not attributable to grade level or professional training and experience. (References are attached.) (NKA)

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A STUDY OF TEACHER APPLICATIION AND KNOWLEDGE OF THE COMPONENTS OF A RESEARCH-BASED MODEL OF SPELLING INSTRUCTION

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Abstract

This study focused on two important issues in spelling instruction. The first was the development of a research-based model of spelling instruction. Twenty instructional strategies were synthesized from 144 empirical studies found in the journal and dissertation literature. They are grouped into three categories: curricular strategies (word selection techniques); pedagogical strategies (teaching techniques); and metacognitive strategies (learning techniques).

The second focus was to investigate three research questions:

1. To what extent do elementary teachers report having employed each of the twenty instructional strategies in their classroom instruction?
2. To what extent are teachers' views in line with research-supported strategies?
3. To what extent do factors of grade level, professional training, and professional experience contribute to the relationship between teachers' views and their reported classroom practices?

The data were obtained through the administration of an investigator-developed questionnaire based on the research-based instructional strategies. The questionnaire was administered in two occasions to 170 elementary and special education teachers. An item analysis was used to investigate the first two research questions. One-way analysis of variance was used to test the third research question.

The findings were that of the twenty strategies, eight were reported as being used and favored; one strategy was reported as being used but not favored. Additionally, teachers indicated a research-based view of six strategies, but failed to integrate those views into their classroom practices. Finally, teachers revealed classroom practices and professional views that were in conflict with five research-based strategies. The results from the one-way analysis of variance further revealed that the discepancies between teacher practices and teacher views were not attributable to grade level, professional experience, or professional training. Implications and recommendations were drawn from the findings.

A STUDY OF TEACHER APPLICATION AND KNOWLEDGE OF THE COMPONENTS OF A RESEARCH-BASED MODEL OF SPELLING INSTRUCTION

by

Martha Jan Mickler, Ph.D.

Purpose of the Study

The primary purpose of this study was to determine the degree of classroom application by elementary school teachers of the components of a research-based model of spelling instruction. A second purpose was to determine the degree to which elementary school teachers held views that were congruent with the components of a research-based model of spelling instruction. A third purpose was to determine whether or not a statistically significant difference in teachers' practice and knowledge, as measured by a calculated discrepancy score, was attributable to groups categorized by grade levels, professional experience, and professional training for three categories of behavioral items on the research questionnaire. The three types of items used were: Curriculum, Teaching Process, and Learner Strategies.

The specific research questions were:

1. To what extent do elementary teachers report that they practiced the components of a research-based model of spelling instruction?

2. To what extent do elementary teachers agree or disagree with the pedagogical effectiveness of the components of a research-based model of spelling instruction.

3. Is there a statistically significant difference in teachers' practices and knowledge, as measured by a calculated discrepancy score, attributable to groups categorized by grade levels, professional experience, and professional training for three categories of behavioral items on the research questionnaire?

Significance of the Study

Researchers have found that teachers who indicate strong views about spelling instructional procedures tend to translate their perceptions to classroom practice (Edwards, 1983; Fitzsimmons, 1971). For example, Edwards (1983) found a high correlation between those instructional procedures teachers believe they should use and those procedures that they reported using in their classroom instruction. Of concern, however, are those teachers who hold pedagogical views that are incongruent with findings from empirical research. Past studies have indicated a moderately weak relationship between teacher-held views and research-based instructional procedures (Baldwin, 1975; Fitzsimmons, 1971; McNiel, 1977). One reason for this discrepancy may be that teachers have not kept abreast of research findings (Read & Hodges, 1982). A second explanation may be that teachers are often ill-equipped to initiate the instructional changes in classroom practice that are suggested in the research literature (Lefecourt, 1972; Templeton, 1979b).

The conclusions of researchers who study the indicators of teachers' practices and views are importantly influenced by the nature of the research instrument used to delineate and test

these factors. Only one instrument has been widely used in research of this nature. Developed by Fitzsimmons (1971) and used by Baldwin (1974), McNiel (1977), and Edwards, (1983), the research questionnaire is seriously weakened in several ways. Some of the procedures classified as research-supported were based on conclusions from older studies that have since have been challenged by current research. For example, one procedural statement is that, "Due to the nature of the English language, most attempts to teach spelling by phonic rules are questionable" (Fitzsimmons, 1971, p. 51). Recent findings from psycholinguistic research suggest that the linguistic structure of the American English spelling system is comprised of regularly occurring relationships between phonemes and graphemes and between words and their meanings (Anderson, 1982, Hanna, Hanna, Rudorf, & Hodges, 1966). Moreover, children begin to use their knowledge of these phonemic/graphemic structures well before exposure to formal spelling instruction (Gerritz, 1975; Henderson & Beers, 1980; Loeffer, 1982; Mayhew, 1977, Read, 1975).

A further problem with the research instrument (Fitzsimmons, 1971) is the ambiguity of some of the procedural statements. One example is the statement, "In order to spell, it is not necessary for children to learn the meaning of the majority of their spelling words" (p. 51). This statement can be interpreted in three ways: that word meanings are not important in the learning of spelling words; that word meanings may be important but children don't have to learn them; or that

because children already know the meanings of their spelling words they should not waste time on relearning those meanings. It is the last interpretation that is research-based.

The focus of the research literature in spelling has shifted during the last two decades. The traditional emphasis on spelling curriculum and instructional methodology has been replaced, in part, by a focus on the relationship between the linguistic structures of the orthography and the process used by children as they learn to spell (Henderson & Beers, 1980; Read and Hodges, 1982). One example of this changing emphasis is the increased attention being placed on the importance of semantic knowledge in spelling. An historic view has been that pronunciation is a crucial factor in spelling ability (T. Horn, 1969). Of the many study techniques found in spelling literature (Aho, 1967; Fernald, 1943; Fitzgerald, 1953; Gilstrap, 1962; Gluster, 1967; Hill & Martinis, 1973; E. Horn, 1954; Westerman, 1971), all focus on the speller's careful pronunciation of each word as an aid to correct spelling.

Findings from psycholinguistic research, however, indicate that the role of pronunciation is diminished in comparison with that of semantic knowledge. These findings have revealed that many words are spelled similarly, not because they are related by pronunciation, but rather because they are related by meaning (Anderson, 1982; Templeton, 1979b). An important consideration germane to this study is the degree to which elementary school teachers utilize this instructional procedure, among others, from the psycholinguistic research

literature.

Because of the changing nature of the research literature, the nature of the hypothesized discrepancy between teacher views and teacher practice has remained clouded and unresolved. This study addressed this problem in that the focus was on the development of a model of spelling instruction that included both the traditional and the more recent psycholinguistic literature. Because the pedagogical items in the research instrument reflect this broad research base, the findings from this study provide an important contribution to understanding what teachers say they do in their classrooms and what they say they ought to do.

Methods and Procedures

The data were obtained through the administration of a investigator-developed questionnaire developed from 144 empirical studies in which spelling procedures were tested in controlled settings. The findings were synthesized and collapsed into twenty instructional techniques.

These techniques fall into three groups of item statements. The first are the Curricula statements in which methods of word selection were tested. A second subgroup is that of Teaching Process statements, those teacher-directed techniques that have produced statistically significant gains in spelling performance. The third category is that of Learner Strategies, those student learning techniques that have been found to be statistically significant factors in improved spelling performance.

The questionnaire was administered to 170 Walker County (Georgia) elementary and special education teachers on two occasions. The first administration tested the teachers' reports of the degree to which they employed the instructional practices prior to the current semester of school. The second administration tested teachers' views about whether or not they should be incorporating the same instructional practices in their classroom instruction. On both occasions, a six-point scale was employed.

One-way analysis of variance was used to test the three research hypotheses drawn from the research questions. The .05 alpha level was used as the criterion for the rejection of the null hypotheses. Further analyses of significant differences were conducted using the Scheffel test statistic. An item analysis was used to determine the degree of discrepancy between teachers' classroom practices and their views of research-based spelling instructional procedures.

Results

The results of the statistical analyses are as follows:

1. There was no significant difference between teachers' grade level and teachers' discrepancy mean scores on each of the three subgroups of item categories on the research instrument.

2. There was no significant difference between teachers' professional experience and teachers' discrepancy mean scores on the three subgroups of item categories.

3. There was no significant difference between teachers'

professional training and teachers' discrepancy mean scores on the three subgroups of item categories.

An item analysis of the twenty instructional statements revealed that teachers both reported using and favored the following research-based procedures:

1. "Teachers should use peer tutoring in their spelling program."

2. "Teachers should use both a list and a contextual format when presenting spelling words for the first time."

3. "Teachers should teach students that in many cases words that are related by meaning are similarly spelled even though they are pronounced differently."

4. "Teachers should provide instruction that focuses, in part, on the relationships between sounds and letters."

5. "Teachers should select activities that focus on the meaningful application of spelling words rather than activities that stress memorization techniques."

6. "Teachers should ensure that students self-correct their spelling pretests."

7. "Teachers should make provisions for a systematic review of spelling words."

8. "Teachers should provide instruction in proofreading skills."

In addition, teachers reported using the research-supported practice of limiting spelling instructional time teaching dictionary skills. However, they expressed doubt that this reduction of instructional time would be effective in improving

student's spelling.

The teachers' responses on the following statements indicated that they held a research-based view, but they failed to put those views into classroom practices:

1. "Teachers should select, in part, spelling words from high frequency word lists developed from child and adult writing."

2. "Teachers should encourage students to maintain personal word lists of those words that they want to use in their writing."

3. "Teachers should use a variety of source materials rather than rely on a single spelling text."

4. "Teachers should administer a pretest at the beginning of each new assignment of spelling words."

5. "Teachers should individualize students' lists of spelling words."

6. "In some cases teachers should exclude students from completing all of the exercises in the commercial spelling texts."

Teachers revealed classroom practices and professional views that were in conflict with:

1. "Teachers should allot no more than seventy-five minutes per week on direct spelling instruction."

2. "Teachers should exclude from spelling instruction those exercises designed to teach and/or develop auditory and perceptual skills."

3. "Rather than focus students on the parts of words that

authorities consider to be the 'hard spots,' teachers should encourage students to determine those personal 'hard spots' of the words that give them difficulty."

4. "When teaching spelling generalizations, teachers should use inductive rather than deductive teaching strategies."

5. "Teachers should assign students only those words that they use in their speech and can read with understanding."

Discussion

The teachers thought that students should learn to spell in meaningful, contextual situations. They reported that they taught proofreading, self correction, and phonic strategies. Moreover, their students were given the opportunity to help each other learn their spelling words. Although teachers reported that they utilized a limited amount of spelling instructional time teaching dictionary skills, the majority thought it was not an effective use of spelling time.

The majority of teachers reported that they confined themselves to a published spelling series for their spelling programs. Thus, they appeared to have fallen prey to some of the inherent disadvantages of most commercial spelling series, that is: the single list of words for the class, exercises that often fail to improve spelling, the lack of emphasis on a pretest and on the development of personal word lists.

The teachers' views on each of the following issues represented a pedagogical procedure supported by empirical research. That is, the subjects indicated that teachers

should:

1) have their students develop personal word lists;

2) use a variety of source materials;

3) administer pretests to students;

4) individualize spelling lists for students;

5) select, in part, high frequency words;

6) exclude some of their students from completing the exercises in the spelling text.

However, despite their research-based knowledge, most teachers did not implement these views.

Teachers indicated agreement with and practice of allowing their students as much spelling instructional time as necessary. Furthermore, teachers appeared to use this practice irrespective of whether they were regular classroom or special education/resource teachers. However, this practice is in variance with research-based findings.

The procedure of focusing students attention on what authorities consider to be the "hard spots" rather than to the students' personal "hard spots" has been shown to be of dubious value. Whether or not teachers utilized this practice is hard to determine. The majority reported that they relied exclusively on the county-adopted spelling text. This series, however, does not direct teachers' attention to authority-designated hard spots, nor does it instruct teachers to utilize this procedure.

Another teacher-practiced procedure in conflict with

research findings is that of selecting spelling words from those words that students need to learn to use in their writing and reading. Over 90% of the teachers reported both the practice of and the agreement with this practice. Several problems are evident.

One is that students are asked to attend to several linguistic functions of unfamiliar words simultaneously. They must assimilate a relevant context of the word before it becomes an automatic addition to their speech vocabulary. Moreover, they must establish a frame of reference prior to understanding the word contextually in print. Finally, they must develop appropriate spelling strategies that will aid in the correct spelling of the word. Each of these tasks requires a differing focus on the individual functions of words, and each is a complex instructional assignment.

A second problem is that when students are assigned a word that they have not encountered in reading, they have not benefited from the incidental learning of the spelling that comes from repeated exposure to it. Thus, a student may not be able to view a spelling attempt in terms of what "looks right."

A third problem is that when students are required to learn the spellings of unfamiliar words, they tend to forget those words because they lack relevance. Spelling lists, therefore, should be comprised of those words that students will need or want to use in their writing.

Another issue in which teachers' practices are in

conflict with research-based recommendations is that of the role of perceptual skill training in spelling instruction. The spelling research indicates that little improvement in spelling is gained through the use of perceptual exercises. Yet, teachers reported that they valued and used these kinds of activities. A concern is the degree to which the emphasis on perceptual skill development supplanted other activities that have beeen shown to have a positive impact on improving spelling, such as purposeful writing.

A final practice not supported by spelling research is that of favoring deductive rather then inductive teaching strategies. Eighty-eight per cent of the teachers thought the deductive process was superior to the inductive process. Of that majority, most teachers reported that they often used deductive rather than inductive teaching strategies.

To summarize, teachers indicated a classroom practice and a research-based view of nine instructional procedures. They indicated a view congruent with research findings on six additional procedures, yet they reported that they seldom implemented those procedures. Finally, on five instructional procedures, teachers reported both classroom practices and a point of view in conflict with research findings.

These findings appear to be unrelated to a teachers' grade level, professional experience, and professional training. None of these independent variables were found to contribute significantly to the discrepancies between

teachers' practices and knowledge.

Recommendations

The following recommendations appear to be warranted:

1. The study should be replicated using samples of teachers from other school systems.

2. An investigation should be made to determine the reasons for the discrepancies between what teachers think they should do and what they report they do in their spelling programs.

3. An investigation should be made to determine the actual classroom practice of the instructional procedures listed in the research questionnaire.

4. The instructional model should be tested in a curriculum validation study.

5. Teacher inservice should be developed to acquaint teachers with the research literature in spelling instruction and to help them design an instructional program relative to their teaching styles and the needs of their students.

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